

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/03/2011

Revision date: 30/06/2016

Supersedes: 01/02/2013

Version: 4.0

CLM-8475-H

| 1.1. Product identifier Product form : Substance Substance name : L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) CAS No : 154445-77-9 (Unlabeled) Product code : CLM-8475-H Formula : C287C0H40N4078 Synonyms : L-Arginine-N-FMOC, Pbf / No-Fmoc-No-422.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-422.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-422.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-422.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4212.4, 6.7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / No-Fmoc-No-4214.4300 1.2. Usea advised against 1.3. Details of the substance or mixture and uses only. 1.3. Details of the substance or mixture Cassification of the substance or mixture Classification of the substance or mixture Classification according to Breactive ST222008 [CLP] Shin Int. 2 1315 | | substance/mixture and of the company/undertaking |
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| Substance name : L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) CAS No : 164445-77-9 (Unlabeled) Product code : CLM-8475-H Formula : C28*C6H40N4O7S Synonyms : L-Arginine-N-FMOC, Pbf / Na-Fmoc-Nu-Pbf-L-arginine / Na-Fmoc-Nu-Pbf-L-a | | |
| CAS No : 154445-779 (Unlabeled) Product code : CLM-9475 H Formula : C28*C64N0A75 Synonyms : CAPGinine-Ar-FMOC.Pbf / Na-Fmoc-Nu-(2,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / Na-fmoc-Nu-02,2,4,6,7-pentmethyldhydrobenzofuran-5-sulfonyl)-L-arginine / No additional information available 1.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andvorer, NA 01810 USA USA 1.800-322-1174 Int: 1-978-749-8000 citabeles@isotope.com Emergency telephone number: Emergency telephone numbers: Chemtrez: 1-800-422-4300 (24 hours) International: 1-703-741-5970 (24 hours) International: 1-703-741-5970 (24 hours) Sector N 22 Hazards Interlification = 21. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irti. 2 H315 SFUT S2 H335 Full Lext of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC xi, R306/738 Full Lext of R-phrases: see section 18 Classification according to Directive 67/548/EEC or 1999/45/EC Xi, R306/738 Full Lext of R-phrases: see section 18 Classification (GHS-US) Skin Irti. 2 H315 Skin Irti. 2 H315 | | |
| Product code : CLM-8475-H Formula : C22*C6H40N4075 Synonyms : L-Arginine-N-FMOC.Pbf / NG-Fmoc-Nuc-Pbf-L-arginine 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2. Relevant identified uses Main use category : Professional use Industrial/Professional use spec : For professional use only. 1.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge lsotope Laboratories, Inc. 50 Frontage Road Andover, IMA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 classisgisotipe.com uww.isotope.com uww.isotope.com uww.isotope.com uww.isotope.com uww.isotope.com uww.isotope.com SecTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Sin Inti? 2 H315 Eye Int? 2 H315 | | |
| Formula : C28*C6H40N4O7S Synonyms :: LArginine-N-FMOC.P6f / NG-Fmoc.Nuc-(2,4,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-L,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / NG-Fmoc.Nuc-P26-Larginine / 1.2. Relevant identified uses : Professional use only. 1.2. Uses advised against : Professional use only. 1.2. Uses advised against : Professional use only. 1.3. Details of the supplier of the safety data sheet : Cambridge lsopatories, Inc. 1.3. Details of the supplier of the safety data sheet : Cambridge lsopatories, Inc. 1.3. Details of the supplier of the safety data sheet : Cambridge lsopatories, Inc. 1.3. Details of the supplier of the safety data sheet : Cambridge lsopatories, Inc. 1.4. 1.90-322-1174 Int: 1-978-749-8000 : Cambridge lsopatories, Inc. 1.5. Emergency turbehone number : Cassification according to Regulation (EC) No. 1272/2008 [CLP] | | |
| Synonyms : LArginine-N-FMOC,Pbf / Na-Fmoc-Nu-(2,24,6,7-pentamethyldihydrobenzofuran-5-suffonyl),L.arginine / Na-Fmoc-Nu-PbFL-arginine : 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2. Relevant identified uses : Professional use Industrial/Professional use gates : Professional use only. 1.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA 1.800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com : www.isotope.com Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, IMA 01810 USA USA 1.800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com : www.isotope.com Sectore : 1-800-424-9300 (24 hours) : SECTION 2: Hazards identification Classification according to Regulation (EC) No. 1272/2008 [CLP] Shin Int: 2. H315 Eye Int: 2. H315 Eye Int: 2. H315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC X: R390/738 Full text of R-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC X: R390/738 Full text of R-phrases: see section 16 Classification (GHS-US) Shin Int: 2. H315 Eye Int: 2. A H315 Fye Int: 2. A H315 | | |
| Na-Fmoc-Nu-{2,2,4,6,7-pentamethyldihydrobenzofuran-5-sulfonyl)-L-arginine / Na-Fmoc-Nu-PbfL-arginine 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses Main use category : Professional use Industrial/Professional use spec : For professional use only. 1.2.2. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andver, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 citaales@lostope.com www.isotope.com Emergency number: Emergency number: Cherriter: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazard's Identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irit. 2 H315 Eye Irit. 2 H315 Eye Irit. 2 H315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xix R30/37/38 Full text of R-phrases: see section 16 Classification (GHS-US) Skin Irit. 2 H315 Eye Irit. 2 H319 Skin Irit. 2 H315 Eye Irit. 2 H315 Ey | | |
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| 1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses Main use category :: Professional use only. : 1.2.1. Uses advised against No additional information available : 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. : So Frontage Road : Andover, MA 01810 : USA : USA : USA 1: 400:322:1174 Int: 1:978-749-8000 citasites@isotope.com : Emergency telephone number : Emergency numbers: : Cherritre: 1:400-424-9300 (24 hours) : International: 1:703-741-5970 (24 hours) : International: 1:703-741-5970 (24 hours) : SECTION 2: Hazards identification : 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] : Skin Irrit: 2 H313 Full text of H-phrases: see section 16 : Classification acco | | |
| 1.1. Relevant identified uses Main use category : Professional use only. 1.2. Uses advised against No additional information available Information available 1.3. Details of the supplier of the safety data sheet Cambridge isotope Laboratories, Inc. Softrage Road Andover, MA 01810 USA USA USA USA 1.1. Emergency telephone number Emergency numbers: Chemistre: 1-900-424-9300 (24 hours) International: 1.705-741-5970 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irit: 2 14315 Eye Irit: 2 14315 Eye Irit: 2 14315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R38/37/38 Full text of R-phrases: see section 16 Classification (GHS-US) Shin Irit: 2 14315 Eye Irit: 2A 14316 Eye Irit: 2A 14316 | | , and the second s |
| Main use category : Professional use Industrial/Professional use spec : For professional use only. 1.2.1. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge lostope Laboratories, Inc. So Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 citasiegiisotope.com www.isotope.com Emergency telephone number Emergency telephone number Emergency numbers: Chemtres: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazards Identification 21. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irti: 2 H315 Eye Irti: 2 H319 STOT SE 3 H335 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC X; R36/37/38 Full text of R-phrases: see section 16 Classification (CHS-US) Skin Irti: 2 H315 Eye Irti: 2 H315 Eye Irti: 2 H316 Eye Irti: 2 | | substance or mixture and uses advised against |
| Industrial/Professional use spec : For professional use only. 1.2.1. Uses advised against No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. So Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 Cilsales@ijsotope.com Emergency telephone number Emergency telephone number Emergency telephone number Cassification according to the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irt: 2 H315 Eye Irt: 2.4 H315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36/37/38 Full text of R-phrases: see section 16 Classification (GHS-US) Skin Irt: 2 H315 Eye Irt: 2.4 H315 Ey | 1.2.1. Relevant identified uses | |
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| No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 Cissles@Biologe.com Emergency telephone number Emergency numbers: Chemtre:: 1-800-4224-9300 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irrit. 2 H315 Eye Irrit. 2 H315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; Ra%03/738 Full text of R-phrases: see section 16 Classification (Phrases: Phrases: See | Industrial/Professional use spec | : For professional use only. |
| No additional information available 1.3. Details of the supplier of the safety data sheet Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 cisales@lootpe.com Emergency telephone number Emergency numbers: Chemtre: 1-800-4224-9300 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irrit. 2 H315 Eye Irrit. 2 H315 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36/37/38 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36/37/38 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: See section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: See section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: See section 16 Classification (HSUS) Skin Irrit. 2 H315 Full text of R-phrases: See section 16 Classification (HSUS) Skin Irrit. 2 H315 Fu | 1.2.2. Uses advised against | |
| Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 cilaales@isotope.com www.isotope.com Emergency telephone number Emergency numbers: Chemtres: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irrit. 2 H315 Eye Irrit. 2 H319 STOT SE 3 H335 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36/37/38 Full text of R-phrases: see section 16 Classification (GHS-US) Skin Irrit. 2 H315 Full text of R-phrases: see section 16 | | |
| Cambridge Isotope Laboratories, Inc. 50 Frontage Road Andover, MA 01810 USA USA: 1-800-322-1174 Int: 1-978-749-8000 cilsales@isotope.com www.isotope.com Emergency telephone number Emergency numbers: Chemtres: 1-800-424-9300 (24 hours) International: 1-703-741-5970 (24 hours) SECTION 2: Hazards identification 2.1. Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP] Skin Irit. 2 H315 Eye Irit. 2 H319 STOT SE 3 H335 Full text of H-phrases: see section 16 Classification according to Directive 67/548/EEC or 1999/45/EC Xi; R36/37/38 Full text of R-phrases: see section 16 Classification (GHS-US) Skin Irit. 2 H315 Eye Irit. 2 H315 Skin Irit. 2 H315 Skin Irit. 2 H315 Skin Irit. 2 H315 | 1.3. Details of the supplier of the sa | afety data sheet |
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| Classification (GHS-US) Skin Irrit. 2 H315 Eye Irrit. 2A H319 | | |
| Skin Irrit. 2 H315 Eye Irrit. 2A H319 | Hull text of R-phrases: see section 16 | |
| Skin Irrit. 2 H315 Eye Irrit. 2A H319 | Classification (GHS-US) | |
| Eye Irrit. 2A H319 STOT SE 3 H335 | | |
| SIUI SE 3 T330 | Eye Irrit. 2A H319 | |
| | 5101 5E 3 H335 | |
| Adverse physicochemical, human health and environmental effects | | |

No additional information available

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| for breathing | 2.2. Label elements | |
|--|-----------------------------------|--|
| Signal word (CLP) : Warning Hazard statements (CLP) : H315 - Causes serious eye iritation H315 - Causes serious eye iritation H315 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H315 - Causes serious eye iritation H316 - Causes serious eye iritation H316 - Causes serious eye iritation H317 - Causes serious eye iritation H316 - Causes serious eye iritation H317 - Causes serious eye iritation H317 - Cause serious eye iritation H316 - Causes serious eye iritation H318 - Causes serious eye iritation H315 - Causes serious eye iritation H315 - Causes serious eye iritation H315 - Causes serious eye iritation H317 - Causes serious eye iritation H316 - Causes serious eye iritation H317 - Causes serious eye iritation H316 - Causes serious eye iritation H318 - Causes serious eye iritation H317 - Use only outdors or in a well-wentilded area < | | 5. 1272/2008 [CLP] |
| H319 - Causes serious eve irritation H335 - May cause respiratory irritation Precautionary statements (CLP) P 261 - Avoid breathing dust, fume, gas, mist, spray, vapors P244 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-wentilated area P280 - Wear protective clothing, protective gloves P304+P340 - IF INHALED: Remove person to thersh air and keep comfortable for breathing P304+P340 - IF INHALED: Remove person to thersh air and keep comfortable for breathing P304+P340 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor//if you feel unwell GHS-US labeling Hazard pictograms (GHS-US) : Warning Hazard statements (GHS-US) : Warning Hazard statements (GHS-US) : Precautionary statements (GHS-US) : P264 - Wash Both hands thoroughly after handling P275 - Low objective clothing, protective gloves P304 - P340 - IF interves : P420 - Vear protective clothing, protective gloves P304 - P340 - IF interves : Signal word (GHS-US) : H319 - Causes serious eye irritatio | Signal word (CLP) | |
| P264 - Wash Both hands thoroughly after naming P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302 + P352 - IF ON SKIN: Wash with plenty of water/ P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P305 + P351 + P338 - IF IN EVES: Rinse cautiously with water for several minutes. Remove contact lenese, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor//if you feel unwell GHS-US labeling Hazard pictograms (GHS-US) : Guisor GHS-US labeling Hazard statements (GHS-US) : Warning Hazard statements (GHS-US) : Hazard statements (GHS-US) : P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P275 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302 + P35 - IF IN SKIN: Wash with plenty of soap and water P303 - IF IN EVES. P304 - P335 - IF IN SKIN: Wash with plenty of soap and water P304 - P335 - IF IN SKIN: Wash with plenty of soap and water P304 - P335 - IF IN SKIN: Wash with plenty of soap and water < | Hazard statements (CLP) | H319 - Causes serious eye irritation |
| Hazard pictograms (GHS-US) : GHsor Signal word (GHS-US) : Hazard statements (GHS-US) : Hazard statements (GHS-US) : Hazard statements (GHS-US) : Precautionary statements (GHS-US) : Precautionary statements (GHS-US) : Precautionary statements (GHS-US) : P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P332+P313 - If skin irritation oecurs: Get medical advice/attention P332+P313 - If skin irritation persists: Get medical advice/attention P332+P313 - If skin irritation persists: Get medical advice/attention P332+P313 - If skin irritation persists: Get medical advice/attention P332+P313 - If skin irritation persists: Get medical advice/attention P332+P313 - If skin irritation persists: Get medical advice/attention < | Precautionary statements (CLP) | P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of water/ P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing |
| Signal word (GHS-US) : Warning Hazard statements (GHS-US) : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation Precautionary statements (GHS-US) : P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P3240 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortabl for breathing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P332+P313 - If eye irritation persists. Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P403+P235 - Store locked up | GHS-US labeling | |
| Signal word (GHS-US) : Warning Hazard statements (GHS-US) : H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation Precautionary statements (GHS-US) : P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortabl for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P337+P313 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up | Hazard pictograms (GHS-US) | : GHS07 |
| H319 - Causes serious eye irritation H335 - May cause respiratory irritation Precautionary statements (GHS-US) P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortabl for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up | Signal word (GHS-US) | : Warning |
| P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortabl for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up | Hazard statements (GHS-US) | H319 - Causes serious eye irritation |
| | Precautionary statements (GHS-US) | P261 - Avoid breathing dust, gas, fume, mist, spray, vapors P264 - Wash Both hands thoroughly after handling P271 - Use only outdoors or in a well-ventilated area P280 - Wear protective clothing, protective gloves P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P312 - Call a POISON CENTER/doctor/physician if you feel unwell P321 - Specific treatment (see Hazard pictograms (CLP) on this label) P332+P313 - If skin irritation occurs: Get medical advice/attention P337+P313 - If eye irritation persists: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up |
| | | |

No additional information available

| SECTION 3: Composition/information on ingredients | | | |
|---|----------------------------------|-----|---|
| 3.1. Substances | 3.1. Substances | | |
| Name | Product identifier | % | Classification according to Directive 67/548/EEC |
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) (Main constituent) | (CAS No) 154445-77-9 (Unlabeled) | 100 | Xi; R36/37/38 |

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|----------------------------------|-----|---|
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) (Main constituent) | (CAS No) 154445-77-9 (Unlabeled) | 100 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 |

Full text of R-, H- and EUH-phrases: see section 16

| Name | Product identifier | % | Classification (GHS-US) |
|---|----------------------------------|-----|---|
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) (Main constituent) | (CAS No) 154445-77-9 (Unlabeled) | 100 | Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 |

Full text of H-phrases: see section 16

| 3.2. Mixtures | |
|--|--|
| Not applicable | |
| SECTION 4: First aid measures | |
| 4.1. Description of first aid measures | |
| First-aid measures general | : Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. |
| First-aid measures after inhalation | : If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician. |
| First-aid measures after skin contact | : Wash with soap and plenty of water. Consult a physician. |
| First-aid measures after eye contact | : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| First-aid measures after ingestion | : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| 4.2. Most important symptoms and ef | fects, both acute and delayed |
| Symptoms/injuries after inhalation | : May be harmful if inhaled. Causes respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May be harmful if absorbed through skin. Causes skin irritation. |
| Symptoms/injuries after eye contact | : Causes eye irritation. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed. |
| 4.3. Indication of any immediate medi | ical attention and special treatment needed |
| No additional information available | |
| SECTION 5: Firefighting measures | |
| 5.1. Extinguishing media | |
| suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
| 5.2. Special hazards arising from the | substance or mixture |
| No additional information available | |
| 5.3. Advice for firefighters | |
| Firefighting instructions | : Wear self contained breathing apparatus for fire fighting if necessary. |
| Protection during firefighting | : Do not enter fire area without proper protective equipment, including respiratory protection. |
| SECTION 6: Accidental release me | asures |
| | equipment and emergency procedures |
| | |
| 6.1.1. For non-emergency personnel Emergency procedures | : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust. |
| 6.1.2. For emergency responders | |
| No additional information available | |
| 6.2. Environmental precautions | |
| Do not let product enter drains. | |
| 6.3. Methods and material for contain | ment and cleaning up |
| For containment | : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |
| 6.4. Reference to other sections | |
| No additional information available | |
| | |

CLM-8475-H

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| SECTION 7: Handling and storage | ge |
|--|---|
| 7.1. Precautions for safe handling | |
| Additional hazards when processed | Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. |
| Hygiene measures | : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. |
| 7.2. Conditions for safe storage, inc | cluding any incompatibilities |
| Technical measures | : Keep container tightly closed in a cool, dry and well-ventilated place. |
| Storage conditions | : Store refrigerated (-5 C to 5 C). Protect from light. |
| 7.3. Specific end use(s) | |
| No additional information available | |
| SECTION 8: Exposure controls/p | personal protection |
| 8.1. Control parameters | |
| No additional information available | |

8.2. **Exposure controls**

Appropriate engineering controls

Personal protective equipment

- : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. : Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

| Hand protection | : Wear suitable protective clothing and gloves. |
|--------------------------|--|
| Eye protection | : Wear safety glasses with side shields (or goggles) and a face shield. |
| Skin and body protection | Choose body protection according to the amount and concentration of the dangerous substance at the work place. |
| Respiratory protection | : When appropriate, use NIOSH/CEN approved respirator. |

SECTION 9: Physical and chemical properties

| 9.1. Information on basic physical an | d chemical properties |
|---|--------------------------|
| Physical state | : Solid |
| Appearance | : Powder, Crystalline. |
| Molecular mass | : 654.73 g/mol (Labeled) |
| Color | : White, Colourless. |
| Odor | : No data available |
| Odor threshold | : No data available |
| рН | : No data available |
| Relative evaporation rate (butyl acetate=1) | : No data available |
| Melting point | : No data available |
| Freezing point | : No data available |
| Boiling point | : No data available |
| Flash point | : No data available |
| Self ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : No data available |
| Relative vapor density at 20 °C | : No data available |
| Relative density | : No data available |
| Solubility | : No data available |
| Log Pow | : No data available |
| Log Kow | : No data available |
| Viscosity, kinematic | : No data available |

Viscosity, dynamic

Explosive properties

: No data available

: No data available

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according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| according to Regulation (EC) No. 453/2010 and according | g to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations |
|---|---|
| Oxidizing properties | : No data available |
| Explosive limits | : No data available |
| 9.2. Other information | |
| No additional information available | |
| SECTION 10: Stability and reactivity | |
| 10.1. Reactivity | |
| No additional information available | |
| 10.2. Chemical stability | |
| Two years after receipt of order if stored as above | ve. Re-QC after two years. |
| 10.3. Possibility of hazardous reactions | |
| No additional information available | |
| 10.4. Conditions to avoid | |
| No additional information available | |
| 10.5. Incompatible materials | |
| Strong oxidizing agents. | |
| 10.6. Hazardous decomposition products | |
| carbon oxides. Nitrogen oxides. Sulphur oxides. | |
| SECTION 11: Toxicological informat | ion |
| 11.1. Information on toxicological effects | |
| Acute toxicity | : Not classified |
| Skin corrosion/irritation | : Causes skin irritation. |
| | No data available |
| Serious eye damage/irritation | : Causes serious eye irritation. |
| | No data available |
| Respiratory or skin sensitization | : Not available |
| Germ cell mutagenicity | No data available : Not available |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not available |
| Specific target organ toxicity (single exposure) | : May cause respiratory irritation. |
| Specific target organ toxicity (repeated exposure) | : Not classified |
| Aspiration hazard | : Not classified |
| Potential Adverse human health effects and symptoms | To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |
| Symptoms/injuries after inhalation | : May be harmful if inhaled. Causes respiratory tract irritation. |
| Symptoms/injuries after skin contact | : May be harmful if absorbed through skin. Causes skin irritation. |
| Symptoms/injuries after eye contact | : Causes eye irritation. |
| Symptoms/injuries after ingestion | : May be harmful if swallowed. |

| SECTI | ON 12: Ecological information | |
|-----------|------------------------------------|--|
| 12.1. | Toxicity | |
| No additi | ional information available | |
| | | |
| 12.2. | Persistence and degradability | |
| L-ARG | ININE-N-FMOC, PBF-OH (U-13C6, 99%) | (CONTAINS SOLVENT) (154445-77-9 (Unlabeled)) |
| Persiste | ence and degradability | Not available. |
| 12.3. | Bioaccumulative potential | |
| L-ARG | ININE-N-FMOC, PBF-OH (U-13C6, 99%) | (CONTAINS SOLVENT) (154445-77-9 (Unlabeled)) |

Bioaccumulative potential Not available.

Safety Data Sheet according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 12.4. Mobility in soil | |
|---|--|
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) | (CONTAINS SOLVENT) (154445-77-9 (Unlabeled)) |
| Ecology - soil | Not available. |
| 12.5. Results of PBT and vPvB assessment | |
| No additional information available | |
| 12.6. Other adverse effects | |
| | Not available. |
| | |
| SECTION 13: Disposal considerations | |
| 13.1. Waste treatment methods | |
| Regional legislation (waste) | Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations. |
| Waste disposal recommendations | Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. |
| Ecology - waste materials | Dispose of as unused product. |
| SECTION 14: Transport information | |
| In accordance with ADR / RID / ADNR / IMDG / IC | AO / IATA |
| 14.1. UN number | |
| Not applicable | |
| 14.2. UN proper shipping name | |
| Not applicable | |
| | |
| 14.3. Additional information | |
| Other information | No supplementary information available. |
| Special transport precautions | Not dangerous goods. |
| | |
| Overland transport | |
| No additional information available | |
| | |
| Transport by sea | |
| No additional information available | |
| Air transport | |
| No additional information available | |
| | |
| 14.4. Environmental hazards | |
| Other information | No supplementary information available. |
| 14.5. Special precautions for user | |
| | Not dangerous goods. |
| | |
| 14.6. Transport in bulk according to Annex | II of MARPOL 73/78 and the IBC Code |
| Not applicable | |
| | |
| SECTION 15: Regulatory information | |
| 15.1. US Federal regulations | |
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) | |
| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

15.2. International regulations

CANADA

L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT) (154445-77-9 (Unlabeled)) Listed on the Canadian DSL (Domestic Substances List) inventory.

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15.2.1. National regulations

No additional information available

| 15.3. US State regulations | | |
|---|---|--|
| L-ARGININE-N-FMOC, PBF-OH (U-13C6, 99%) (CONTAINS SOLVENT)(154445-77-9 (Unlabeled)) | | |
| State or local regulations | U.S Pennsylvania - RTK (Right to Know) List U.S New Jersey - Right to Know Hazardous Substance List This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm. | |

SECTION 16: Other information

Other information

: This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases::

| Eye Irrit. 2 | Serious eye damage/eye irritation Category 2 |
|---------------|---|
| Skin Irrit. 2 | skin corrosion/irritation Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H335 | May cause respiratory irritation |
| R36/37/38 | Irritating to eyes, respiratory system and skin |
| Xi | Irritant |

| NFPA health hazard | 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given. |
|--------------------|--|
| NFPA fire hazard | : 0 - Materials that will not burn. |
| NFPA reactivity | : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water. |
| | |

HMIS III Rating

| Health | : 2 Moderate Hazard - Temporary or minor injury may occur |
|--------------|---|
| Flammability | : 0 Minimal Hazard |
| Physical | : 0 Minimal Hazard |

CIL Multi-Solvent Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product